

**PRELIMINARY SURVEY OF THE CRANE FLIES OF LOUISIANA  
(DIPTERA: TIPULIDAE, PTYCHOPTERIDAE)**

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*Abstract.*—The Tipuloidea of Louisiana have not come within the scope of earlier regional faunal studies of these flies. Fifty-two species (one of Ptychopteridae and 51 of Tipulidae) are recorded from Louisiana, 31 of them for the first time. This preliminary list somewhat overemphasizes the larger crane flies (Subfamily Tipulinae).

*Key Words:* Tipulidae, Ptychopteridae, Louisiana

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Early in his amazingly productive career, C. P. Alexander published a two-volume treatise (1919, 1920a) on the crane flies of New York. Later (1942, 1966) he added a major publication on the Tipuloidea of Connecticut. The scope of both these works was much wider than the titles suggest, including most of northeastern United States and southeastern Canada, and extending well into the Upper Midwest. In dozens of shorter papers, many in numbered series, he described hundreds of species as specimens became available to him. In one series of papers published in *The American Midland Naturalist* between 1940 and 1954, Alexander dealt with the crane flies (Tipuloidea) of several regions of the United States that had provided specimens of greatest interest to him. In the eastern states, these included two papers on crane flies of the southern Appalachians in Tennessee (1940) and North Carolina (1941). But he never dealt with species—on a regional basis—from the Coastal Plain of southeastern United States (i.e., Georgia and Florida) westward into Texas.

As a matter of fact, there has been only one crane fly survey paper published in the past 90 years that covers any part of the Gulf Coastal Plain region—Rogers' 1933 report, which focused on northern peninsular Florida, but also included some records from southern Georgia, southern peninsular Florida, and the Florida panhandle. Prior to our study, there have been no published reports of crane fly collections from Louisiana, only isolated locality records for a relatively modest number of species in the context of revisionary studies or catalogues.

Our report is based on: (1) tipulid specimens in the Louisiana State Arthropod Museum, Department of Entomology, Louisiana State University (LSU), Baton Rouge; (2) a collection assembled by the junior author (DAR) between August 1997 and May 1999, when he was living in Louisiana year round, plus a small sample acquired on subsequent visits to the state following his retirement from LSU and relocation to Iowa; and (3) a few specimens collected by the senior author (GWB) during visits to Louisiana in 1983 and 1993.

For the sake of completeness, in addition to the taxa identified in the three collections mentioned above, we have listed all of the species previously reported from the state but not represented in the collections we examined. This brings the total number of species known from Louisiana to 52, which more than doubles the number of species previously reported from the state. Since most of our material was collected in East Baton Rouge Parish (the Louisiana equivalent of a county), where LSU is located and where the junior author resided, one can only assume that future collecting focused on other parts of the state would yield still more previously unreported taxa.

#### SPECIES LIST

##### Family Ptychopteridae

*Bittacomorpha clavipes* (Fabricius).—Washington Par.: Sheridan, Lee Memorial Forest, April 19. First state record; nearest previous records—NW Arkansas (Byers and Robison 1997) and Florida, Georgia, Tennessee (Alexander 1966). The specimen was fluttering in a hardwood corridor along a small stream running through a pine upland; sphagnum moss was abundant adjacent to the stream.

##### Family Tipulidae

##### Subfamily Tipulinae

*Megistocera longipennis* (Macquart).—East Baton Rouge Par.: Baton Rouge, June 22, September 11–24. First state record; nearest previous records—Texas and N Florida (Alexander 1965). The individual collected in late September was taken at an outdoor light.

*Dolichozepea (Orozepea) subalbipes* Johnson.—Natchitoches Par.: No specific locality or date (Byers 1961).

*Brachypremna dispellens* (Walker).—West Feliciana Par.: Tunica Hills Nature Preserve, September 6. First state record; nearest previous records—NW Arkansas (Byers and Robison 1997) and "... Tennessee southward to Florida and Texas" (Alexander 1966).

*Nephrotoma abbreviata* (Loew).—East Baton Rouge Par.: Baton Rouge, March 13, June 24, August 31–November 21; 3 mi. N of Baton Rouge, October 14. Livingston Par.: Denham Springs, February 28. Pointe Coupee Par.: Sherburne Wildlife Management Area, October 17. St. Charles Par.: Norco (Oosterbroek 1984). All but the St. Charles Par. specimen represent first parish records. Two specimens were collected at outdoor lights (August 31, September 24), and one was taken in a light trap on September 16.

*Nephrotoma cornifera* (Dietz).—East Feliciana Par.: Clinton, September 10. First state record; nearest previous record—panhandle Florida (Tangelder 1983).

*Nephrotoma macrocera* (Say).—East Baton Rouge Par.: Baton Rouge, September 20–October 13; Bluebonnet Swamp Nature Center, October 26. St. Charles Par.: Norco (Tangelder 1983). Winn Par.: Gum Springs, 13 km WSW of Winnfield, May 17. All but the St. Charles Par. specimen represent first parish records. A female specimen collected on a lighted window at night at the Bluebonnet Swamp Nature Center on May 3, 1998, may represent either this species or *N. gnata* (Dietz). If it is the latter species, it would be the first state record; the nearest previously reported records for *N. gnata*—NW Alabama and N Arkansas (Tangelder 1983).

*Nephrotoma suturalis suturalis* (Loew).—East Baton Rouge Par.: Baton Rouge, January 31–May 12. First parish record.

*Nephrotoma urocera* (Dietz).—West Feliciana Par.: Tunica Hills Nature Preserve, October 18. First state record; nearest previous records—west-central Alabama and panhandle Florida (Tangelder 1983). The specimen was first observed flying, then hanging from vegetation, along a sandy creek bottom in deeply dissected, hardwood-covered loess bluffs.

*Tipula (Nippotipula) abdominalis* (Say).—De Soto Par.: Stonewall, October 18. First state record; nearest previous re-

cords—Tennessee and N Florida (Alexander 1966).

*Tipula (Lunatipula) australis* Doane.—Louisiana: No specific locality (Alexander 1966).

*Tipula (Lunatipula) rossmani* Byers.—East Baton Rouge Par.: Baton Rouge, January 9–February 2; Bluebonnet Swamp Nature Center, April 5. East Feliciana Par.: Port Hudson State Commemorative Area, January 18. This newly described species (Byers 2003) was the most frequently encountered crane fly during the month of January. Eight of the 12 Baton Rouge specimens were found flying low (less than two feet) above a lawn.

*Tipula (Lunatipula) rotundiloba* Alexander.—East Baton Rouge Par.: Baton Rouge, March 21. First state record; nearest previous record—E Texas (Alexander 1915).

*Tipula (Platytipula) tennesa* Alexander.—East Baton Rouge Par.: Baton Rouge, November 1; 1.2 mi. S of Central, November 12. First state records: nearest previous record—Tennessee (Alexander 1920b). One specimen was netted by sweeping.

*Tipula (Platytipula) ultima* Alexander.—East Baton Rouge Par.: Baton Rouge, November 17. First state record; nearest previous record—Mississippi (Alexander 1966). This single female specimen closely resembles the female of *Tipula (P.) tennesa*.

*Tipula (Schummelia) sp. near hermannia* Alexander.—East Baton Rouge Par.: Baton Rouge, March 19. This female specimen would represent the first state record for *T. hermannia*; nearest previous records—Tennessee, Georgia, N Florida (Alexander 1966). The fly was collected on the outside of a window screen at 7 A. M.

*Tipula (Triplicitipula) umbrosa* Loew.—Caddo Par.: Louisiana Welcome Center on I-20, March 20. East Baton Rouge Par.: Baton Rouge, January 24–April 9, October 8; Bluebonnet Swamp Nature Center, March 12–May 3. Jackson Par.: Schoolhouse Springs, 6 mi. N of Eros, April 14. Livingston Par.: Denham Springs, March 19.

Natchitoches Par.: LA 6 at I-49, March 20. St. Landry Par., I-49 rest area, March 20. St. Tammany Par.: 3 mi. E of Folsom, March 18–24. Terrebonne Par.: Schriever, October 15. West Baton Rouge Par.: Brusly, March 12; Port Allen, February 16. West Feliciana Par.: 6 mi. ESE of St. Francisville, Feliciana Preserve, April 16. First parish records (Loew's type specimen was from Louisiana). This is probably the most ubiquitous, and unquestionably the most conspicuous, crane fly species in Louisiana during the late winter and early spring months. The collection of two specimens in October raises the possibility that *T. umbrosa* may have two generations per year in Louisiana. Most specimens were collected on the outside walls and windows of buildings (as high as the third story) during daylight hours, although one was sitting on a lighted window at night, and two others were collected at blacklights. Several were found in yard vegetation, and a copulating pair was collected on the surface of a concrete parking lot on a cool, sunny day (February 14, 1999).

*Tipula (Yamatotipula) eluta* Loew.—East Baton Rouge Par.: Baton Rouge, May 26 and October 10; Bluebonnet Swamp Nature Center, October 19–November 16. West Feliciana Par.: 6 mi. ESE of St. Francisville, Feliciana Preserve, September 28. First state records: nearest previous records—NW Arkansas (Byers and Robison 1997) and Tennessee, N Florida (Alexander 1966). The collecting dates suggest the possibility of two generations. Specimens were collected in a variety of situations: by sweeping, by hand amid logs on the forest floor, on the inside wall of a carport, on large window panes, and on a boardwalk railing at the edge of a cypress swamp.

*Tipula (Yamatotipula) fraterna* Loew.—East Baton Rouge Par.: Baton Rouge, May 4. First state record; nearest previous records—Georgia and N Florida (Alexander 1966).

*Tipula (Yamatotipula) furca* Walker.—East Baton Rouge Par.: Baton Rouge, May

12–June 15, September 16–October 20; Baker, October 24. St. Martin Par.: 4 mi. S of Belle River, January 31. First parish records. One specimen was collected on a patio wall, one was swept from weeds, and one was near a light.

*Tipula (Yamatotipula) jacobus* Alexander.—East Baton Rouge Par.: Bluebonnet Swamp Nature Center, November 16. Washington Par.: Sheridan, Lee Memorial Forest, April 19. First state records; nearest previous records—NW Arkansas (Byers and Robison 1997) and Tennessee, Georgia, and N Florida (Alexander 1966). The Bluebonnet Swamp specimen was on a boardwalk railing at the edge of a cypress swamp; the one from Lee Memorial Forest was found on herbaceous vegetation in a hardwood bog in pine uplands.

*Tipula (Yamatotipula) ludoviciana* Alexander.—Louisiana: No specific locality (Alexander 1965).

*Tipula (Yamatotipula)* sp. near *osceola* Alexander.—East Baton Rouge Par.: Baton Rouge, November 24–25. If this tentative identification is correct, it would be the first state record for the species; nearest previous record—Florida (Alexander 1927).

*Tipula (Yamatotipula) sayi* Alexander.—East Baton Rouge Par.: Baton Rouge, October 5–November 20; 3 mi. N of Baton Rouge, US 61, October 14. East Feliciana Par.: Idlewild Research Station, July 20. Natchitoches Par.: no specific locality, October 30. First parish records. Two specimens were collected in buildings (one on the third story), and one was sitting on the door of a garage.

*Tipula (Yamatotipula)* sp. near *sayi* Alexander.—East Baton Rouge Par.: Baton Rouge, October 26–November 2; 2 mi. SE of Baton Rouge, November 20. These individuals may represent a variant of *T. sayi* in which the ninth tergum of the male differs slightly.

*Tipula (Yamatotipula) subeluta* Johnson.—East Baton Rouge Par.: Baton Rouge, August 29–October 14. First state record; nearest previous record—Florida (Alexander

1966). One specimen was collected near a porch light.

*Tipula (Yamatotipula) tricolor* Fabricius.—East Baton Rouge Par.: Bluebonnet Swamp Nature Center, October 26. Jefferson Par.: 8 mi. S of Marrero, April 4. First state records; nearest previous records—Arkansas, Tennessee, Alabama, Florida (Alexander 1966). Both localities are in or immediately adjacent to swamp forests. The specimen from Bluebonnet Swamp was collected on a large window pane of the nature center in the early morning.

#### Subfamily Limoniinae

*Limonia (Dicranomyia) divisa* Alexander.—East Baton Rouge Par.: 3 mi. N of Baton Rouge, US 61, March 24. First state record; nearest previous records—Georgia and Florida (Alexander 1966).

*Limonia (Dicranomyia) pudica* (Osten Sacken).—East Baton Rouge Par.: Baton Rouge, January 31–February 1. First state record; nearest previous record—North Carolina (Alexander 1966).

*Limonia (Geranomyia) canadensis* Westwood.—Louisiana: No specific locality (Alexander 1966).

*Limonia (Geranomyia) remingtoni* Alexander.—East Baton Rouge Par.: Baton Rouge, October 7–November 10. Orleans Par.: Chalmette (Alexander 1947). The Baton Rouge specimens represent the first parish record.

*Limonia (Geranomyia) rostrata* Alexander.—Louisiana: No specific locality (Alexander 1966).

*Limonia (Metalimnobia) annulus cinctipes* (Say).—St. Landry Par.: Thistlethwaite Wildlife Management Area, February 15. First state record; nearest previous record—Mississippi (Alexander 1966). Five female specimens emerged from a polypore fungus, *Inonotus dryadeus* (Pers.) Murrill, between February 20 and March 1.

*Limonia (Rhipidia) bryanti* (Johnson).—St. Tammany Par.: 10 mi. NE of Slidell, June 2. First state record; nearest previous

records—Texas and Florida (Alexander 1966).

*Limonia (Rhipidia) domestica* (Osten Sacken).—East Baton Rouge Par.: Baton Rouge, August 29–January 10; Bluebonnet Swamp Nature Center, December 6; 3 mi. N of Baton Rouge, US 61, October 14; Ben Hur Farm Research Station, August 27; 1.2 mi. S of Central, September 2. East Feliciana Par.: Clinton, September 10. St. Tammany Par.: 10 mi. NE of Slidell, May 23. First state records; nearest previous records—Texas and Mississippi (Alexander 1966). One specimen was netted by sweeping beneath a pecan tree; four others were taken at lights.

*Limonia (Rhipidia) fidelis* (Osten Sacken).—East Baton Rouge Par.: Baton Rouge, September 19; Zachary, September 16. First state records; nearest previous records—Tennessee and NW Florida (Alexander 1966). The Baton Rouge specimen emerged from rotting wood.

*Orimarga (Diotrepha) mirabilis* (Osten Sacken).—East Baton Rouge Par.: 1.2 mi. S of Central, September 2; NE of Indian Mound, October 13. First state records; nearest previous records—N Florida and Texas (Alexander 1966).

*Helius (Helius) flavipes* (Macquart).—Acadia Par.: No specific locality, October 9. First state record; nearest previous records—Texas, Alabama, Florida (Alexander 1966).

*Pedicia (Tricyphona) inconstans* (Osten Sacken).—Jackson Par.: Schoolhouse Springs, 6 mi. N of Eros, April 14. First state record; nearest previous record—NW Arkansas (Byers and Robison 1997) and Georgia (Alexander 1966).

*Epiphragma fasciapenne* (Say).—Louisiana: No specific locality (Alexander 1966).

*Epiphragma solatrix* (Osten Sacken).—Caddo Par.: West Shreveport, September 18. East Baton Rouge Par.: Baton Rouge, March 26, September 23–November 3. West Feliciana Par.: Tunica Hills Nature Preserve, March 28. First parish records. It

seems likely that there are two generations each year. One of the Baton Rouge specimens was sitting on the window of a building; the one from the Tunica Hills was sitting on a sandy creek bottom in a deeply dissected, bluffland hardwood forest.

*Pseudolimmophila luteipennis* (Osten Sacken).—East Baton Rouge Par.: Baton Rouge, April 4–May 16 and December 6. First parish record. The specimen collected in December was active on a large window in early morning.

*Pseudolimmophila* species.—East Baton Rouge Par.: 3 mi. N of Baton Rouge, US 61, March 24; 1.2 mi. S of Central, April 4. This species has the head conspicuously prolonged behind the eyes and vein 2A curved apically to the margin, but the male has blackened, bifurcate gonapophyses such as shown by Alexander (1966, fig. 46I) for *Limmophila similis* Alexander. The Rs is short and curved as shown for *Austrolimmophila* Alexander; the thoracic color is similar to that of *Limmophila lutea* Doane.

*Pilaria recondita* (Osten Sacken).—East Baton Rouge Par.: Baton Rouge, April 4–26; Bluebonnet Swamp Nature Center, December 6. St. John the Baptist Par.: La Place, August 8. Vernon Par.: Rosepine, October 10. First parish records. One specimen was actively moving about on the inside wall of a carport, another was flying around porch lights, and a third was sitting on a large, lighted window pane of the nature center after dark.

*Atarba (Atarba) picticornis* Osten Sacken.—Louisiana: No specific locality (Alexander 1966).

*Eugnophomyia luctuosa* (Osten Sacken).—East Baton Rouge Par.: Baton Rouge, August 23. Washington Par.: Lee Memorial Forest, Sheridan, May 10. Winn Par.: Gum Springs, 13 km WSW of Winnfield, May 17. First state records; nearest previous record—Mississippi (Alexander 1966).

*Gnophomyia (Gnophomyia) tristissima* Osten Sacken.—West Feliciana Par.: W of Wyanoke, Tunica Hills, May 8. “Magnolia” [no parish indicated, and there are four

communities of this name in the state], April 27. First state records; nearest previous records—Texas, Alabama, Florida (Alexander 1966).

*Teucholabis (Teucholabis) complexa* Osten Sacken.—East Baton Rouge Par.: Baton Rouge, October 5. Iberville Par.: St. Gabriel Research Station, October 7. St. Tammany Par.: No specific locality, August 18. First state records; nearest previous records—Oklahoma, Alabama, Florida (Alexander 1966). The Baton Rouge specimen was found in a house, and the one from St. Gabriel was collected by use of a mercury vapor blacklight.

*Gonomyia (Lipophleps) puer* Alexander.—East Baton Rouge Par.: Baton Rouge, November 9. East Feliciana Par.: Clinton, September 10. First state records; nearest previous records—Georgia and Florida (Alexander 1966).

*Gonomyia (Lipophleps) burgessi* Alexander.—Rapides Par.: Camp Claiborne (Alexander 1944).

*Gonomyia (Lipophleps) sulphurella* Osten Sacken.—Louisiana: No specific locality (Alexander 1966).

*Erioptera (Psiloconopa) graphica* Osten Sacken.—Louisiana: No specific locality (Alexander 1965).

*Erioptera (Mesocyphona) femoraatra* Alexander.—East Baton Rouge Par.: Baton Rouge, November 9–26. First state record; nearest previous record—Georgia (Alexander 1965).

*Erioptera (Mesocyphona) parva* Osten Sacken.—East Baton Rouge Par.: Baton Rouge, November 9–27. First state record; nearest previous records—Alabama and Florida (Alexander 1966).

*Erioptera (Symplecta) cana* (Walker).—East Baton Rouge Par.: Baton Rouge, March 29; 3 mi. N of Baton Rouge, US 61, March 24. Iberville Par.: St. Gabriel, November 21. Lincoln Par.: 21 mi. W of Monroe, January 27. First state records, but Alexander (1966) said that the species is “almost universally distributed throughout the United States and Canada.”

*Toxorhina (Toxorhina) magna* Osten Sacken.—East Baton Rouge Par.: Baton Rouge, June 26, September 10–November 23; 1.2 mi. S of Central, June 16. First parish records. One of the June specimens was at a blacklight, the other was sitting on a wall just beneath the ceiling of a carport. One of the fall-collected flies was swept from weeds, and the other was on a lighted store window.

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